

Claims

What is claimed is:

1. An intervertebral implant comprising:
 - a first member for engaging a first vertebral body, the first member comprising a first surface with a first curve;
 - a second member for engaging a second vertebral body, the second member comprising a second surface with a second curve;
 - wherein the first member is translatable with respect to the second member and the second curve is positioned within the first curve to bias the first and second curves towards central alignment along a longitudinal axis passing through the first and second vertebral bodies.
2. The intervertebral implant of claim 1 wherein the first curve has a first constant radius and a first center point, and the second curve has a second constant radius and a second center point.
3. The intervertebral implant of claim 2 wherein the first constant radius is larger than the second constant radius.
4. The intervertebral implant of claim 2 wherein central alignment comprises alignment of the first and second center points along the longitudinal axis.
5. The intervertebral implant of claim 2 wherein the first curve has a first interior area defined by the sweep of the first constant radius and the second curve is positioned within the interior area.
6. The intervertebral implant of claim 1 wherein the first curve has a variable radius.
7. The intervertebral implant of claim 1 wherein the first curve has a combination of curved and flat portions.

8. The intervertebral implant of claim 1 further comprising a center member interposed between the first and second members.
9. The intervertebral implant of claim 8 wherein the center member articulates between the first and second surfaces as the first member is translated relative to the second member.
10. The intervertebral implant of claim 1 wherein the second surface has a semi-cylindrical protrusion extended along a lateral axis.
11. The intervertebral implant of claim 1 wherein the second surface has a semi-spherical protrusion.
12. The intervertebral implant of claim 1 wherein the first and second surfaces have depressions.
13. The intervertebral implant of claim 1 further comprising a restraint mechanism for restricting motion along a lateral axis.
14. The intervertebral implant of claim 1 wherein the first member is translatable with respect to the second member along an anterior-posterior axis.
15. The intervertebral implant of claim 1 further comprising a neutral position and a first position wherein in the first position, the implant is biased to move toward the neutral position.
16. The intervertebral implant of claim 15 wherein in the first position, the first curve is in closer conformance with the second curve.
17. The intervertebral implant of claim 1 wherein the first curve is wider than the second curve.

18. The intervertebral implant of claim 1 wherein the first curve is superior to the second curve along the longitudinal axis.
19. The intervertebral implant of claim 1 wherein the first surface is concave and the second surface is convex.
20. The intervertebral implant of claim 1 wherein the first and second surfaces are concave.
21. An intervertebral prosthesis comprising:
 - a first member for engaging a first bone portion, the first member comprising a first curved surface;
 - a second member for engaging a second bone portion, the second member comprising a second curved surface;
 - wherein as the first member is translated with respect to the second member, conformity between the first and second curved surfaces increases.
22. A method for installing a vertebral implant device between two vertebral bodies in a vertebral column, the method comprising:
 - engaging a center member with a first curved surface of a first member;
 - engaging the center member with a second curved surface of a second member;
 - positioning the second curved surface within an interior area of the first curved surface;
 - engaging the first member with a first vertebral body; and
 - engaging the second member with a second vertebral body,
 - wherein the first member is translatable and further wherein the first and second curved surfaces are biased toward central alignment along a longitudinal axis passing through the first and second vertebral bodies.
23. An intervertebral implant comprising:
 - a first member for engaging a first vertebral body, the first member comprising a first relatively flat surface, wherein the first relatively flat surface includes a perimeter lip;
 - a second member for engaging a second vertebral body, the second member comprising a second curved surface;

wherein the first member is translatable with respect to the second member and wherein the second curve is positioned on the first relatively flat surface, within the perimeter lip allowing the second member to move unconstrained within perimeter lip.